

Open Up the Ceiling on the Common Core State Standards

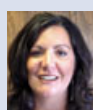
PREPARING STUDENTS FOR 21ST-CENTURY LITERACY—*NOW*

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Common Core State Standards promise to prepare students for literacy demands of the 21st century, but do they acknowledge the changing nature of literacy and the Internet as a central text?

The Common Core State Standards (CCSS) promise an opportunity to prepare our students for the new literacy demands of the 21st century (National Governors Association Center for Best Practices [NGA Center] & Council of Chief State School Officers [CCSSO], 2010). Building on the foundation of the standards movement over the past 20 years, the CCSS outline the expected knowledge and skills required for students to be “college and career ready” at the end of their K–12 education. Yet, as will be traced throughout this article, the standards fail to do enough to acknowledge the changing nature of literacy and the Internet as a central text.

The majority of reading in which students engage takes place online (Kaiser Family Foundation, 2010); therefore, students must be prepared with skills, strategies, and dispositions to succeed in a globally networked, multimodal, digital age of



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information and communication (OECD, 1996). As they stand now, the CCSS put a ceiling on the types of literacy experiences students will have in K–12 classroom settings. Knowing where the standards fall short, as well as how to remedy the situation, will help teachers prepare students for 21st-century literacy demands—*now*. Educators can open up the ceiling by expanding literacy experiences to include online literacy and its distinct purposes, processes, and forms of text to better match the type of reading in which students engage outside school and to fulfill the expectations of being literate in today’s world.

Common Core State Standards Overview

The authors of the CCSS borrowed from the direction other countries have taken by creating fewer standards that are meant to be investigated deeply (NGA Center & CCSSO, 2010). Being “fewer, clearer, higher” (Phillips & Wong, 2010), the standards provide a roadmap for K–12 curriculum and instruction. They were designed for states to adopt by choice, with large financial incentives from the federal government to adopt the standards right away. To date, 48 states have

been involved in the initiative, 46 states have adopted the standards, and 22 states have been recipients of up to \$700 million to improve schools through reforming existing standards (U.S. Department of Education, 2012).

The two organizations driving the CCSS Initiative (CCSSI) are the Council of Chief State School Officers and the National Governors Association Center for Best Practices, neither of which is associated directly with the federal government. The CCSSI purposefully includes the words *state standards* in its title to indicate that these standards are *by* the states and *for* the states. The federal government is not the visible force behind the standards, but it is certainly leveraging their adoption by tying hundreds of millions of dollars in Race to the Top funds to those states that adopt the standards.

With the intention of “fewer, clearer, higher,” the CCSS outline the content without specifically dictating the process. This allows states, districts, and teachers to determine the most appropriate pedagogies for their particular students. Other design features of the English/language arts (ELA) standards include an integrated model of literacy (NGA Center & CCSSO, 2010), which recognizes the reciprocal processes of reading and writing and listening and speaking, as well as the application of literacy standards within history/social studies, science, and technical subjects. This integration has implications for ELA teachers as well as content-area teachers.

The Changing Nature of Literacy

The CCSS provide educators with a fresh opportunity to prepare students for literacy demands of college and career. With the Internet as the defining technology for literacy and learning in the 21st century (Leu et al., 2011), students need to be prepared as skilled and strategic readers, writers, and communicators in online environments.

The umbrella of online literacy is multifaceted and constantly changing and covers a variety of “new literacies” (Bilal, 2002; Lankshear & Knobel, 2007; Leu, O’Byrne, Zawilinski, McVerry, & Everett-Cacopardo, 2009; Warschauer, 2011) that students need in order to be literate—*now*—such as using search engines, blogs, wikis, Facebook, Google Docs, and other emerging technologies. Future literacy demands will encompass technologies that have yet to be invented (Leu et al., 2011). One aspect of online literacy that many believe to be critical for students’

success is online reading proficiency (Coiro & Dobler, 2007; International Reading Association, 2009; Leu et al., 2009; Leu, Kinzer, Coiro, & Cammack, 2004; RAND Reading Study Group, 2002).

Online Reading Defined

Broadly defined, online reading is a problem-based learning process, with the Internet as the primary text. Online readers access the Internet to provide answers to a variety of questions. Good online readers use effective strategies to (a) *locate* information to answer their question(s), (b) critically *evaluate* the usefulness of the information, (c) *synthesize* the information to answer their question(s), and then (d) *communicate* their answer to others (Coiro & Dobler, 2007; Leu et al., 2004). Although both online and offline reading build on common skill sets, online reading requires additional skills, strategies, and dispositions (RAND Reading Study Group, 2002).

21st-Century Literacy Instruction

Today, the majority of the reading in which students engage takes place online (Kaiser Family Foundation, 2010) and thus requires additional comprehension skills and strategies (Coiro, 2003; Leu et al., 2004). Over two billion people, or nearly one third of the world’s population, are reading online (Internet World Stats, 2012). Therefore, students must be prepared to succeed in a globally networked, multimodal, digital age of information and communication (OECD, 1996).

The International Reading Association (2009) states the following:

To become fully literate in today’s world, students must become proficient in the new literacies of 21st-century technologies. As a result, literacy educators have a responsibility to effectively integrate these new technologies into the curriculum, preparing students for the literacy future they deserve. (p. 1)

Leading international organizations concur in their sets of literacy and technology standards (Association of College and Research Libraries, 2000; International Reading Association and the National Council of Teachers of English, 1996; International Society for Technology in Education, 2007; Partnership for 21st Century Skills, 2009); all have in common an understanding of the Internet as a dominant text for students and the reading of information on the Internet as a problem-solving process.

Even the CCSS authors appear to have considered online reading and other digital literacies. In the introduction to *Common Core State Standards for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects*, the authors explain:

To be ready for college, workforce training, and life in a technological society, students need the ability to gather, comprehend, evaluate, synthesize, and report on information and ideas, to conduct original research in order to answer questions or solve problems, and to analyze and create a high volume and extensive range of print and nonprint texts in media forms old and new. (NGA & CCSSO, 2010, p. 4)

As expressed in the quote, the CCSS authors acknowledge the changing nature of literacy to include *nonprint texts in new media forms*. Yet, the standards themselves do not adequately address the changing nature of literacy and the Internet as a central text. Teachers need to be aware of what this omission means, and should know how to remedy the situation, so that all students are prepared for 21st-century literacy demands—*now*.

Reading and Writing in the Common Core State Standards

The CCSS account for the changing nature of literacy in the introduction (as cited earlier) and in the writing standards. The writing standards contain several references to digital media and one explicit mention of the Internet (see Table 1). The writing standards specifically address elements that scholars (e.g., Coiro, 2003) have identified as important to online reading comprehension (see Table 2).

Although the CCSS authors recognize the knowledge and skill set required for online literacy, as evident in the introduction and writing anchor standards, the reading anchor standards do not appear to fully capture the additional elements of online reading. They do not specifically mention “the ability to gather, comprehend, evaluate, synthesize and report on information and ideas” (NGA Center & CCSSO, 2010, p. 4) online or offline. In fact, there is no mention of online reading at all. One mention of “diverse formats and media” in reading anchor standard 7 refers more often to visual (illustrations and artwork) and quantitative text

TABLE 1 ELA College- and Career-Readiness Anchor Standards That Address Online Literacy

Content	Standard
Reading	CCRA.R.7. Integrate and evaluate content <i>presented in diverse formats and media</i> , including visually and quantitatively, as well as in words.
Writing	CCRA.W.6. <i>Use technology, including the Internet</i> , to produce and publish writing and to interact and collaborate with others. CCRA.W.8. Gather relevant information from multiple <i>print and digital sources</i> , assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
Speaking and listening	CCRA.SL.2. Integrate and evaluate information <i>presented in diverse media and formats</i> , including visually, quantitatively, and orally. CCRA.SL.5. <i>Make strategic use of digital media</i> and visual displays of data to express information and enhance understanding of presentations.

TABLE 2 Essential Elements of Online Literacy in the CCSS Writing Anchor Standards

Element	Standard number	Standard language
Locating	CCRA.W.8	<i>Gather relevant information from multiple print and digital sources</i>
Evaluating	CCRA.W.8	<i>Assess the credibility and accuracy of each source</i>
Synthesizing	CCRA.W.8	<i>Integrate the information</i>
Communicating	CCRA.W.6	<i>Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others</i>

(charts, graphs, tables) when broken down by grade level. Although the CCSS acknowledge higher order thinking processes during reading, they do not reflect higher level online skills and strategies, such as the location of information using a search engine (Bilal, 2002) or critical evaluation of source (Hargittai, 2002).

It is not enough for these skills and strategies to be included in the writing standards. With no specific mention of either online reading comprehension or the Internet in the reading standards, it is likely they will not be included in standards-based reading curriculum and instruction, producing an artificial ceiling on the types of literacy experiences students will have in school. With this ceiling, students' in-school literacy experiences will not mirror what will be required of them outside school and for full participation in global society.

It is unclear why the CCSS authors excluded online literacy and the Internet in the reading standards when they justify their importance in the introduction. What is clear is that the authors of the reading standards hold a print-centric view of text, as described via "text complexity" in Appendix A of the *Common Core State Standards for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects* (2010). Without explicitly naming online text and the Internet as a central text for students, many CCSS consumers will neglect to consider it when planning classroom literacy and learning experiences.

Text Complexity

In the past year, many curricular responses to the Common Core State Standards have appeared. The two large assessment consortia, Partnership for Assessment of Readiness for College and Careers (PARCC; parconline.org) and SMARTER Balanced Assessment Consortium (www.k12.wa.us/smarter), have released drafts specifying the assessment domain that states and districts will use to create standards-based curricula. Both consortia tout "text complexity" as an essential design element of the reading CCSS.

There is not one essential "whole" to understand with online text, especially on the Internet.

The rationale of Common Core authors is that, for students to be college and career ready, they need to engage in "close reading" experiences with appropriately complex texts.

The distinction between online and offline reading is not yet considered in this conversation. Digital texts are included as add-ons in PARCC and SMARTER Balanced Assessment materials. Recommendations for "close reading" of text (PARCC, 2011) do not take into account the discursive, nonlinear, interactive, and multimodal elements of online text. For example, in close reading episodes, students "reflect on the meaning of individual words, the order in which sentences unfold, and the development of ideas over the course of the text, [arriving at] an understanding of the text as a whole" (PARCC, 2011, p. 3).

These goals are not appropriate with online reading. Students are more likely to reflect on the connections among hyperlinked content and the reliability of sources to synthesize and construct one's unique understanding of the diverse texts encountered. As can also be argued with offline text, there is not one essential "whole" to understand with online text, especially on the Internet. It is not enough to list "digital text" as a type of text students will encounter; stakeholders need to address the additional demands of online reading to prepare students for meaningful encounters with online content.

The CCSS and accompanying materials from PARCC and SMARTER Balanced Assessment follow the paradox of expecting online literacy proficiency without providing a path for teaching the additional skills and strategies students will need (Castek, 2012; Kymes, 2005) to achieve that goal. The exclusion of the Internet as a central text in the standards and accompanying documents will *underprepare* students for 21st-century literacy demands and has the potential to further alienate at-risk readers and writers, exacerbating the adolescent literacy crisis (Leu et al., 2011).

Research demonstrates that struggling adolescent readers are motivated by digital reading environments, as opposed to the print-centric reading environments in which they have been defined as incompetent (O'Brien, Beach, & Scharber, 2007). Online and other digital environments may allow struggling readers to break free from the Matthew effect (Stanovich, 1986) and begin to close the achievement gap (Edyburn, 2007).

Moving Ahead to Address Online Literacy in the CCSS

A lot is at stake as states begin to plan curriculum and instruction around the Common Core State Standards. States can agree to adopt the CCSS and may change 15% of the standards to include content they deem valuable, as long as the states plan to measure the additional standards (Achieve, 2010). This is an opportunity for states to open up the ceiling on the standards and include elements that others have recognized as central to literacy in an online world of information and communication.

Districts, schools, and teachers can study their state's version of the Common Core standards to consider if online literacy is well represented. At this point, states that are participating in the PARCC and SMARTER Balanced Assessments still retain control over the curriculum units that will prepare students for the assessments. They will also retain local control over standards content that is not appropriate to test on large-scale assessments. Therefore, states, districts, and teachers can still include this critical content where the CCSS have left it out. The following section outlines steps to open up the ceiling on the ELA Common Core State Standards to include the new literacies of online reading and communicating.

Action Steps to Open Up the Ceiling

Study Individual State's Standards. The first step educators can take on a district or school level is to collectively study their state's latest version of the ELA standards to determine if their state has made any changes to the CCSS. (As of the publication of this article, states that have yet to adopt the standards are Alaska, Nebraska, Texas, and Virginia.) Teachers can find the original CCSS on the Common Core website (www.corestandards.org/) to compare with their own state's versions (found on state Department of Education websites). Look for the "new" ELA or reading standards with a publication date of 2010, 2011, or 2012. By comparing these two documents, teachers can see the changes or lack thereof. Changes will most likely be minor because adopting states are able to change only up to 15% of CCSS content. Notice if additional skills and knowledge related to digital literacy, and specifically online reading, are included in the state's documents.

Determine if Online Literacy Is Included in the State's Version of the CCSS. To begin, look in the state's reading/ELA standards for mention of "Internet," "online reading," "location of information online using a search engine," or "critical evaluation of online sources." Notice where "text" is mentioned, and determine if it refers to online and offline text interchangeably or ignores online text altogether. If a state has acknowledged online literacy, teachers can move to the last step.

Share Findings at the State Level. When armed with evidence that the CCSS and the state have ignored online literacy competencies, teachers can begin to advocate for the inclusion of these skills and strategies on a state and local level. Teachers can share their insights with their principals or curriculum specialists. Furthermore, teachers can contact state curriculum specialists and lobby for the inclusion of this valuable content. Teachers can ask to attend district or state curriculum council meetings or request that district curriculum specialists relay their concerns. Advocate for the state to take the opportunity to revise state versions of the CCSS to focus their percentage of changes on the new literacies of online reading. Alternatively, states can create an addendum document to the CCSS, providing recommendations for integrating online literacy into Common Core curriculum.

Integrate Online Literacy Within CCSS Units of Study. Many states offer exemplar CCSS units on their websites. Empowered and knowledgeable teachers can begin to create exemplary units of study integrating online literacy. Teachers can request that the state post the unit(s) on the state website. Because it appears that PARCC and Smarter Balanced assessments will be taken on the computer, states will feel additional pressure to prepare students for digital reading environments; integrating online literacy skills and strategies within CCSS units of study is an optimal starting point. The following curricular recommendations can be considered as teachers work to begin crafting instructional units.

Recommendations for Additional Online Literacy Standards

The CCSS recommend integrating reading, writing, listening and speaking, and language standards within ELA instruction as well as across the disciplines of history/social studies, science, and technical subjects. Similarly, online and offline text and comprehension

TABLE 3 Proposed Digital Literacy Additions to the Common Core ELA Anchor Standards

1. Critically evaluate a set of search results to locate relevant information related to central questions in each content area. (Reading: Craft and Structure)
2. Synthesize information and competing points of view from an extensive online search and clearly communicate reasonable conclusions. (Reading: Integration of Knowledge and Ideas)
3. Write for a variety of purposes using digital media and environments: to communicate and generate new ideas, products, or processes, to exchange information, and to interact with others. (Writing: Range of Writing)
4. Create and participate in online and offline literacy communities to exchange ideas, enhance comprehension of texts and topics, and solve problems of depth and complexity that enhance one's community. (Listening and Speaking: Comprehension and Collaboration)
5. Apply knowledge of digital media structures and language to create, critique, and discuss online texts. (Language: Knowledge of Language)

skills and strategies can be integrated within units of instruction. In some instances, the current Common Core standards can be tweaked to include a more inclusive blend of traditional and online literacies. For example, with reading anchor standard 8, the following addition (underlined) would enhance the standard by including online reading: *Delineate and evaluate the argument and specific claims in online and offline text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.*

Some states have addressed online literacy in their allowable percentage of changes to the CCSS (which was determined in step 2); in this case, teachers can integrate those standards when creating Common Core instructional units. More often, new content standards that include online literacy would need to be added.

Taken literally, 15% of the college- and career-ready ELA anchor standards consists of about 5 of the 32 standards. The following five standards (see Table 3) suggest the *additional* content necessary to open up the ceiling on the Common Core State Standards. Adding these standards to the existing set of anchor standards provides an online literacy framework from which to build 21st-century curriculum and instruction now.

1. *Critically evaluate a set of search results to locate relevant information related to central questions in each content area.* Certain online and offline reading skills and strategies overlap, but additional skills appear to be important during online reading comprehension (Coiro & Dobler, 2007; RAND Reading Study Group, 2002). Critically evaluating a set of search results requires *new* or additional strategies and critical inferencing skills (Bilal, 2002; Hargittai, 2002). Because of such factors as

inconsistent multimodal (hypertext, graphics, videos, audio, etc.) formatting of information on the Internet, lack of quality control over material, an overwhelming amount of information, outdated sources and links, and the use of digital deception and manipulation of content for political purpose (Coiro, 2003), students need explicit instruction in critically evaluating information online (Castek, 2012). These skills build from critical reading competencies offline, such as investigating sources, recognizing an author's purpose, distinguishing opinion from fact, making inferences, forming judgments, and detecting propaganda devices (Coiro, 2003), but they go beyond, too.

2. *Synthesize information and competing points of view from an extensive online search and clearly communicate reasonable conclusions.* Synthesizing information from competing points of view is particularly challenging for students when working with traditional print text, yet it is even more demanding with online text. "When students read conventional print text, they can be fairly confident that the information is more accurate than what they find on the Web, as the publishing and editing processes of traditional print text often incorporate more rigorous review procedures" (Henry, 2006, p. 620). When reading online, students are overloaded with finding relevant and meaningful sources and then synthesizing often-competing points of view. Within an online reading experience, good online readers use strategies to locate, evaluate, and synthesize recursively.
3. *Write for a variety of purposes using online media and environments: to communicate and generate*

new ideas, products, or processes, to exchange information, and to interact with others. Writing online has additional purposes, beyond the traditional text purposes outlined in the Common Core writing anchor standards—specifically, to argue, inform, and narrate. The purpose of writing for online media and environments such as webpages, blogs, wikis, and RSS often includes one or a combination of traditional purposes as well as such purposes as collaboration, exchange of ideas, self- and group reflection and feedback, and generation of new ideas. To help students navigate online environments and use them to their full capacity, teachers must be conceptually aware of all the possibilities of their use. New technologies such as blogs or wikis make novel demands on learning, and supportive pedagogies need to be considered fully (Duffy & Bruns, 2006).

4. *Create and participate in online and offline literacy communities to exchange ideas, enhance comprehension of texts and topics, and solve problems of depth and complexity that enhance one's community.* Similar to the rationale for writing for unique online purposes, this speaking and listening standard addresses collaboration elements within online literacy communities. Although an existing collaboration and communication standard is addressed in Common Core speaking and listening anchor standard 1, it does not address the formation of literacy communities, online or offline, although “most literacy educators agree that community-oriented environments are critical for students’ literacy learning” (Turner & Kim, 2006, p. 21). The Internet offers an opportunity to learn and interact with people from diverse cultures despite physical distance. “Anyone with Internet access can immediately communicate with someone on the other side of the world. This Internet era is fundamentally different from the era in which most teachers went to school, and it will define the literacy and communication practices for a generation” (Sweeny, 2010, p. 122).
5. *Apply knowledge of digital text structures and language to create, critique, and discuss online texts.* Several new text structures and formats exist within the Internet and other information and communication technologies (ICTs) that students may be familiar with but perhaps not savvy enough to use effectively in their own writing.

Students need to be taught specifically the various digital genres and their elements: hypertext, multimedia, and interactivity (Chandler-Olcott & Mahar 2001; Merchant 2007). The new genres of the Internet and other ICTs include webpages and wikis, instant messaging/chats, e-mails, text messaging, blogs, RSS, cloud technology, games, and more. Beyond the diversity of those genres in form and function, even more challenging is that most Web documents contain a combination of genres. Online genres are often hybrids of existing and emerging genres (Villanueva, Ruiz-Madrid, & Luzon, 2010). Teaching students the form and function of online genres is challenging because it is constantly changing.

Furthermore, current discourse indicates a resistance on the part of an older, more traditional generation to include the new digital genres among academic genres, because they see the use of new media outlets as inferior, deficient, and even detracting from students’ ability to use academic language (Greenhow & Robelia, 2009; Lankshear & Knobel, 2006; Warschauer, 2011). However, for full participation in a global society centered on the Internet and other ICTs, students need to be taught these new genres as well as the traditional academic genres. Educators can remove the distinction between the new literacies they use in and outside school (Alvermann, 2008; Hagood, 2000; Lewis & Fabos, 2005; Sweeny, 2010). By illustrating key content, form, and function of each genre, teachers can help students recognize text structure and features so that they can analyze and communicate using these text structures in school and personal communications (International Society for Technology Education, 2007).

Open Up the Ceiling NOW

The Common Core State Standards ask students to engage in rigorous learning and higher order thinking. But that is not enough. For all students to be ready to engage in a global marketplace of ideas, educators need to do a better job of preparing students with online literacy skills, strategies, and dispositions. As they stand now, the CCSS put a ceiling on the type of literacy experiences that students will be exposed to within a K–12 classroom setting. Educators can open up the ceiling by expanding the purpose of reading and the definition of *text* to better match the type of

Take Action

STEPS FOR IMMEDIATE IMPLEMENTATION

Following are instructional practices that teachers can use to begin to prepare students for the new literacies of online reading and communicating.

- ✓ *SEARCH strategy* (Henry, 2006). Students set a purpose for online searches, employ effective search strategies, analyze search-engine results, read critically and synthesize information, cite sources, and examine *how* successful was the search. Also, teachers can provide students with a list of real search results on a specific topic. Students choose the result that, with *one click*, will provide them with the most relevant and accurate information.
- ✓ *Adapting Collaborative Strategic Reading* (Klingner & Vaughn, 1998) *for Reading Online*. Adapt collaborative strategic reading (CSR) phases (preview, click and clunk, get the gist, and wrap up) to match online reading demands. Clicks and clunks refer to websites with sound information (click) or questionable information (clunk). During “Get the Gist,” students synthesize their findings to that point.
- ✓ *Internet Reciprocal Teaching* (adapted from Palincsar & Brown [1984]; McVerry, Zawilinski, & O’Byrne, 2009; Leu et al., 2008). Readers work together to construct understanding of text through questioning, locating, evaluating, synthesizing, and communicating online information.
- ✓ *Critically Evaluating Online Information*. Refer to the online module at www.lite.iwarp.com/CoiroCritEval.html to help students develop strategies for critical evaluation of online content. (See also Castek, 2012.)
- ✓ *Use Blogging to Support Higher Order Thinking (HOT)* (Zawilinski, 2009). Use blogs for “housekeeping” tasks, online literature response journals, student–teacher dialogue journals, online galleries/portfolios of student work, and more. See example: mskreul.edublogs.org.
- ✓ *Use Wikis to Engage Students in Collaborative Writing*. Students cocreate and publish collaborative writing pieces for research projects, as a summary of group work, or as a review

of class readings, projects, or assignments. See example: creativecougars.wikispaces.com.

- ✓ *ePals*. Students participate in an international literacy community through ePals (www.epals.com).

online literacy experiences students need to be fully literate outside school and in a 21st-century global marketplace of ideas.

The recommended standards (as provided in “Recommendations for Additional Online Literacy Standards”) will enhance CCSS units of study by including those skills, strategies, and dispositions that professional literacy and technology organizations suggest are important for reading, writing, and communicating online. Although this list is not exhaustive, it represents an inclusive view of emerging research in the additional literacies that are required online but are not currently represented in the standards.

States, districts, and teachers can take action to include this critical content in curriculum and instruction, even though it is missing in the CCSS. Educators cannot continue to ignore online literacy demands or our students may continue to fall further behind in college and career readiness *and* preparation for a global workplace. Furthermore, the new literacies of online reading and communicating offer innovative ways to engage reluctant readers (O’Brien et al., 2007), which could perhaps be the first step in narrowing the achievement gap (Edyburn, 2007) between proficient readers and their struggling counterparts.

Lastly, with the next wave of assessments being computer based, educators will have to consider how to prepare students for a digital environment. As the Common Core authors state, “the standards are designed to be robust and relevant to the real world, reflecting the knowledge and skills that our young people need for success in college and careers....positioned to compete successfully in the global economy” (NGA Center & CCSSO, 2010). With the proposed additions, they can begin to do just that.

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